

REMARKS

Claims 1, 3-8, 10, and 12-17 are pending in the present application. Claims 2, 9, and 11 have been canceled. New claims 13-17 have been added.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Bale et al. (USP 6,687,601). This rejection is respectfully traversed.

Claim 2 has been canceled and claim 3 has been amended to depend from claim 1.

Independent claim 1, as amended, requires that the failure of the exhaust increasing device be determined “based on a maximum intake pressure generated due to a spit-back of a combustion gas in the cylinder towards the intake channel after the intake valve has allowed the intake channel to communicate with the cylinder and prior to an occurrence of an exhaust pulsation or an intake pulsation, and a predetermined failure diagnosis reference range.”

In the Office Action, the Examiner alleges, with regard to claim 2, which claims the “maximum value of the detected intake system pressure lies outside the predetermined failure diagnosis reference range” limitation, that Bale discloses such a feature in Fig. 2 and in col. 8, line 62 to col. 9, line 10.

Applicants respectfully submit that Bale does not disclose or suggest the use of the maximum value of the detected intake system pressure. Bale specifically states in col. 8, line 62 – col. 9, line 6 that

[C]ontrol computer 42 is operable to diagnose the operation of the air handling mechanism being tested, and produce a fault condition value, FC, as a function of

AC, AP and AHOP. In general, control computer 42 is operable to execute step 164 by comparing the engine/air handling system operating parameter, AHOP, and the actuator position value, AP, to one or more threshold values and/or operating windows therefore, and diagnose any failures/faults associated with the air handling mechanism, mechanism actuator and/or actuator position sensor based on the outcome of such comparisons.

Therefore, in Bale, the control computer 42 merely determines whether the engine/air handling system operating parameter, AHOP, and the actuator position value, AP, is within one or more threshold values and/or operating windows, and does compare the maximum engine/air handling system operating parameter, AHOP, and the maximum actuator position value, AP, with one or more threshold values and/or operating windows.

Moreover, Bale does not diagnose the operation of the air handling mechanism “based on a maximum intake pressure generated due to a spit-back of a combustion gas in the cylinder towards the intake channel after the intake valve has allowed the intake channel to communicate with the cylinder and prior to an occurrence of an exhaust pulsation or an intake pulsation.”

Therefore, Bale does not disclose or suggest the “exhaust pressure increase failure diagnostic unit” as recited in claim 1.

Claim 3, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections – 35 U.S.C. § 103

Claims 9-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bale. This rejection is respectfully traversed.

Claims 9 and 11 have been canceled.

Independent claim 10 is allowable at least for the similar reasons as stated in the foregoing with respect to claim 1.

More specifically, Bale does not determine “as to whether the exhaust pressure increasing device has failed based on a maximum detected intake pressure generated due to a spit-back of a combustion gas in a cylinder towards the intake channel after an intake valve has allowed the intake channel to communicate with a cylinder of the internal combustion engine, and a predetermined failure diagnosis reference range.” Accordingly, Bale does not disclose or suggest the “determining” step as recited in claim 10.

Claim 12, dependent on claim 10, is allowable at least for their dependency on claim 10.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Allowable Subject Matter

Applicants appreciate the Examiner’s indication that claims 4-8 are allowable over the prior art of record.

New Claims

Claims 13-17 have been added.

Claim 13, dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 14 is allowable at least because none of the prior art of record disclose or suggest determining “as to whether the exhaust pressure increasing device has failed based on a minimum intake pressure detected after the intake valve has allowed the intake channel to

communicate with the cylinder and prior to an occurrence of an exhaust pulsation or an intake pulsation, and a predetermined failure diagnosis reference range.”

Claims 15-17, variously dependent on claim 14, are allowable at least for their dependency on claim 14.

A favorable determination and allowance of these new claims is earnestly solicited.

Conclusion

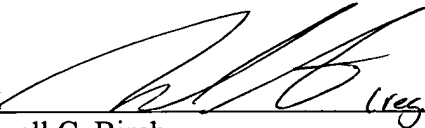
Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (Reg. No. 40417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: October 18, 2005

Respectfully submitted,

By  (reg #40,414)
for Terrell C. Birch
Registration No.: 19,382
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Rd
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicants